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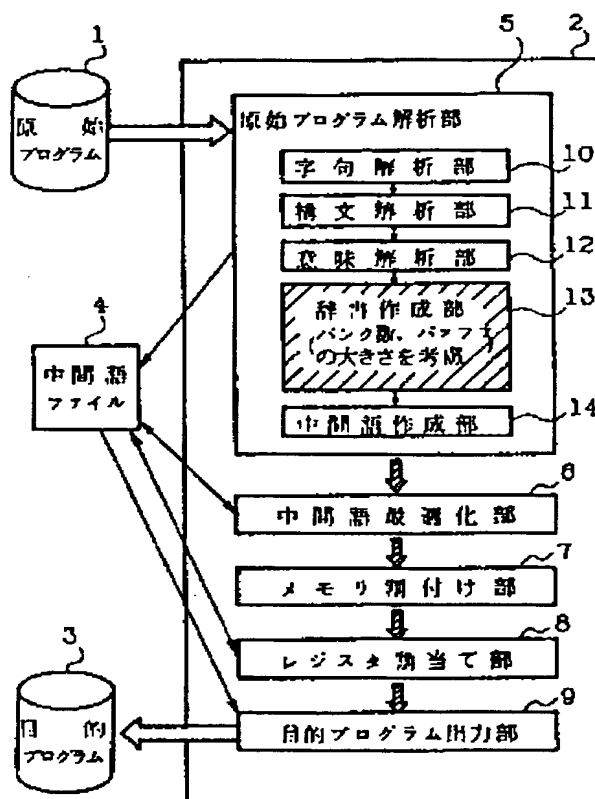
(74) Representative:

(54) MEMORY ASSIGNMENT  
SYSTEM FOR MULTI-  
DIMENSION ARRAY

(57) Abstract:

**PURPOSE:** To attain the memory assignment of a multi-dimension array by selecting the size of an array to be a size not causing frequent rewrite by increasing the dimension if the size of the array except the final dimension causes frequent rewrite of a buffer or bank conflict easily.

**CONSTITUTION:** A source program 1 is inputted to a source program analysis section 5 of a compiler 2, an intermediate word is generated and outputted to an intermediate language file 4. The analysis section 5 is provided with a phrase analysis section 10, a syntax analysis section 11, a significance analysis section 12, a dictionary generating section 13 taking the size of a buffer and bank number into consideration and an intermediate word generating section 14. An intermediate language optimizing section 6 inputting the intermediate word optimizes the intermediate word to improve the execution rate and a memory assignment section 7 assigns an area required for the execution of an object program. Moreover, a register assignment section 8 assigns a register to an instruction of an intermediate word and converts an intermediate word into a machine word from a program output section 9 to output a program 3.



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